

HEALTHEAST MEDICAL TRANSPORTATION
MEDICAL OPERATIONS MANUAL

NOREPINEPHRINE (LEVOPHED)

Drug Classification: Nonselective adrenergic agonist

BACKGROUND

Pharmacodynamics

This medication functions as a peripheral vasoconstrictor (alpha-adrenergic action), an inotropic stimulator of the heart and dilator of coronary arteries (beta-adrenergic action).

Indications

- Sepsis/Septic shock unresponsive to infusion of 40 mL/kg of fluids.

Contraindications

- Known allergy or sensitivity to the medication
- Allergy to sulfites
- Profound hypoxia or hypercarbia

Cautions

- May cause severe, long lasting high blood pressure in patients who are taking MAOIs or tricyclic antidepressants.
- Use with caution in patients taking hyperthyroid medications.
- This medication is caustic and will cause tissue necrosis if infiltrated.

DOSAGE and ADMINISTRATION

ADULT	PEDIATRICS (less than 60 kg)
1. Administer an infusion starting at 0.1 mcg/kg/min. ¹ Titrate up to 0.5 mcg/kg/min to achieve MAP of 65 mmHg or greater. ² See chart on page 3.	1. Administer an infusion starting at 0.1 mcg/kg/min. ¹ Titrate up to 0.5 mcg/kg/min to achieve a MAP of 65 mmHg or greater. ² See chart on page 3.

ADVERSE REACTIONS/SIDE EFFECTS

- Local vasoconstriction, tissue hypoxia
- Hypertension may induce stabbing chest pain, headache, pallor, intense sweating, and/or vomiting
- Anxiety
- Necrosis of infiltrated tissues

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NOTES

- ¹ **Norepinephrine (Levophed)** infusion: Mix 8 mg of **norepinephrine (Levophed)** in a 250 mL bag normal saline (concentration of 32 mcg/mL). Monitor carefully for infiltration at the IV/IO site. Continuous cardiac monitoring is required.
- ² Titrate initially to a heart rate of 100 bpm. After obtaining a full set of vitals, titrate to a MAP of 65 or greater. Do not exceed a heart rate of 130 bpm.

REFERENCE GUIDELINE:

3I Sepsis/Septic Shock

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LEVOPHED DRIP CHART					
8 mg in 250 mL NS (60 gtt tubing)					
Dosage mcg/kg/min →	0.1	0.2	0.3	0.4	0.5
↓ Body weight	FLOW RATE IN DROPS/MIN				
22 lbs/10 kg	2	4	6	8	9
33 lbs/15 kg	3	6	8	11	14
44 lbs/20 kg	4	8	11	15	19
55 lbs/25 kg	5	9	14	19	23
66 lbs/30 kg	6	11	17	23	28
77 lbs/35 kg	7	13	18	26	33
88 lbs/40 kg	8	15	23	30	38
99 lbs/45 kg	8	17	25	34	42
110 lbs/50 kg	9	19	28	38	47
121 lbs/55 kg	10	21	31	41	52
132 lbs/60 kg	11	23	34	45	56
143 lbs/65 kg	12	24	37	49	61
154 lbs/70 kg	13	26	39	53	66
165 lbs/75 kg	14	28	42	56	70
176 lbs/80 kg	15	30	45	60	75
187 lbs/85 kg	16	32	48	64	80
198 lbs/90 kg	17	34	51	68	84
209 lbs/95 kg	18	36	53	71	89
220 lbs/100 kg	19	38	56	75	94
231 lbs/105 kg	20	39	59	79	98
242 lbs/110 kg	21	41	62	83	104
Ideal body weight					
	Females			Males	
5'2"	126 lbs/57 kg			139 lbs/63 kg	
5'6"	140 lbs/64 kg			150 lbs/68 kg	
6'	159 lbs/72 kg			169 lbs/77 kg	